



UNITRONIC® BUS LD



Info

- LD is a LAPP abbreviation for long distance

Benefits

- Suitable for multiple Bus systems based on RS485 / RS422

Application range

- For fixed installation
Maximum electromagnetic screening
- Bus cables for bus systems such as e.g. Modbus, SUCOnet P, Modulink P, VariNet-P)
- Dry or damp rooms

Product features

- The stated bit rates result in the following cable lengths (maximum) of one bus segment:
- 9.6-93.75 kbit/s = 1200m
- 187.5 kbit/s = max. 1,000 m
- 500 kBit/s = max. 400 m
- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- UL versions with certification: UL/CSA type CMX acc. to UL 444 and CSA C22.2 no. 214-02

Product Make-up

- Stranded bare 7-wire conductor, colour-coded according to DIN 47100
- Copper braid
- PVC sheath
- Colour: violet (RAL 4001)
- UNITRONIC® BUS LD A as UNITRONIC® BUS LD, but with UL/CSA certification

Technical data

	ETIM 5.0 Class-ID: EC001855 ETIM 5.0 Class-Description: Sensor-actuator patch cord
	Mutual capacitance (800 Hz): max. 60 nF/km
	Peak operating voltage (not for power applications) 250 V
	Conductor resistance (loop): max. 186 ohm/km
	Minimum bending radius Fixed installation: 8 x outer diameter
	Test voltage Core/core: 1500 V rms
	Characteristic impedance 100 - 120 Ohm
	Temperature range Fixed installation: -40°C to +80°C Flexing: -5°C to +70°C

Article number	Article designation	Number of pairs and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
for fixed installation					
2170203	UNITRONIC® BUS LD	1 x 2 x 0,22	5.7	18	37
2170204	UNITRONIC® BUS LD	2 x 2 x 0,22	7.1	28	45
2170205	UNITRONIC® BUS LD	3 x 2 x 0,22	7.2	37	72
For fixed installation - UL/CSA CMX certification					
2170803	UNITRONIC® BUS LD A	1 x 2 x 0,22	5.7	18	39

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).

Modbus is owned by the Modbus-IDA Organisation. SUCOnet P is a registered trademark of the Moeller Group. Modulink P is a registered trademark of Weidmüller GmbH & Co. VariNet is a registered trademark of Pepperl+Fuchs GmbH.

Photographs are not to scale and do not represent detailed images of the respective products.

UNITRONIC® BUS LD FD P

LAPP KABEL STUÏTGART UNITRONIC® BUS LD FD P



Info

- LD is a LAPP abbreviation for long distance

Benefits

- PUR outer sheath, tear and notch-resistant, resistant to mineral oils and abrasion when used in power chains
- UL versions with certification: UL/CSA type CMX acc. to UL 444 and CSA C22.2 no. 214-02
- Suitable for multiple Bus systems based on RS485 / RS422

Application range

- For highly flexible applications (power chains, moving machine parts)
- Bus cables for bus systems such as e.g. Modbus, SUCOnet P, Modulink P, VariNet-P)

Product features

- The stated bit rates result in the following cable lengths (maximum) of one bus segment:
 - 9.6-93.75 kbit/s = 1200m
 - 187.5 kbit/s = max. 1,000 m
 - 500 kBit/s = max. 400 m
- Flame-retardant according IEC 60332-1-2

Product Make-up

- Stranded conductor, bare, core identification code in accordance with DIN 47100
- Copper braid
- PUR outer sheath
- Colour: violet (RAL 4001)
- UV-resistant (but colour may change after some time)

Technical data

	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
	Mutual capacitance (800 Hz): max. 60 nF/km
	Peak operating voltage (not for power applications) 250 V
	Conductor resistance (loop): max. 159.8 ohm/km
	Minimum bending radius Fixed installation: 6 x core diameter One bend at end of core: 3 x cable diameter Flexing: 15 x outer diameter
	Test voltage Core/core: 1500 V rms
	Characteristic impedance 100 - 120 Ohm
	Temperature range Fixed installation: -40°C to +80°C Flexing: -30°C to +70°C

Article number	Article designation	Number of pairs and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
For highly flexible applications (power chains, moving machine parts)					
2170213	UNITRONIC® BUS LD FD P	1 x 2 x 0,25	6	18	39
2170214	UNITRONIC® BUS LD FD P	2 x 2 x 0,25	7,9	33	65
2170215	UNITRONIC® BUS LD FD P	3 x 2 x 0,25	8	39	77
For highly flexible applications (e.g. power chains) - with UL/CSA (CMX) certification					
2170813	UNITRONIC® BUS LD FD P A	1 x 2 x 0,25	6,2	18	39
2170814	UNITRONIC® BUS LD FD P A	2 x 2 x 0,25	8,3	33	65
2170815	UNITRONIC® BUS LD FD P A	3 x 2 x 0,25	8,4	39	77

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Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum

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Accessories

- SILVYN® CHAIN
- SMART STRIP stripping tool